UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/017,183	12/07/2001	Coach Wei	EMC-06-235(PRO)ORD1	5883

24227   7590   05/12/2009

EMC CORPORATION
OFFICE OF THE GENERAL COUNSEL
176 SOUTH STREET
HOPKINTON, MA 01748

EXAMINER
ZHEN, LI B

ART UNIT	PAPER NUMBER
2194	

MAIL DATE	DELIVERY MODE
05/12/2009	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on _26 February 2009_.
2a)☒ This action is **FINAL**.   2b)☐ This action is non-final.
3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) _1-18 and 22-25_ is/are pending in the application.
    4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5)☒ Claim(s) _1-18, 24 and 25_ is/are allowed.
6)☒ Claim(s) _22 and 23_ is/are rejected.
7)☐ Claim(s) _____ is/are objected to.
8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.
10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.
    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
    a)☐ All   b)☐ Some * c)☐ None of:
        1.☐ Certified copies of the priority documents have been received.
        2.☐ Certified copies of the priority documents have been received in Application No. _____.
        3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)
2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3)☐ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____ .
5)☐ Notice of Informal Patent Application
6)☐ Other: _____.

DETAILED ACTION

1.   Claims 1 – 18 and 22 – 25 are pending in the current application.

Allowable Subject Matter

2.   Claims 1 – 18, 24 and 25 are allowed.

Response to Arguments

3.   Applicant's arguments with respect to the claims have been considered but are moot in view of the new ground(s) of rejection.

Correction of Inventorship Under 37 CFR 1.48(a)

4.   In view of the papers filed 06/14/2007, it has been found that this nonprovisional application, as filed, through error and without deceptive intent, improperly set forth the inventorship, and accordingly, this application has been corrected in compliance with 37 CFR 1.48(a). The inventorship of this application has been changed by the addition of ZAKIR MAGDUM as an inventor.

The application will be forwarded to the Office of Initial Patent Examination (OIPE) for issuance of a corrected filing receipt, and correction of Office records to reflect the inventorship as corrected.

Claim Rejections - 35 USC § 103

5.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

6.   This application currently names joint inventors. In considering patentability of

the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of

the various claims was commonly owned at the time any inventions covered therein

were made absent any evidence to the contrary. Applicant is advised of the obligation

under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was

not commonly owned at the time a later invention was made in order for the examiner to

consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g)

prior art under 35 U.S.C. 103(a).

7.   **Claims 22 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable**

over U.S. Patent No. 6,901,554 to Bahrs et al. [hereinafter Bahrs, previously cited]

in view of "What are Enterprise JavaBeans components?: Part 1: The history and

goals of EJB architecture" [hereinafter Nordby, previously cited] and further in

view of U.S. 7,404,177 to Greenfield et al. [hereinafter Greenfield].

8.   As to claim 22, Bahrs teaches a system for distributing an application [col. 14,

lines 23 – 36] to a plurality of client devices having different display capabilities [col. 44,

lines 13 – 50] includes at least a server [a server 104; col. 12, lines 15 – 45], at least a

client device [clients 108, 110, and 112; col. 12, lines 16 – 43], and a communication

means [network 102; col. 12, lines 16 – 45], the system comprising:

a presentation layer of the application [ViewController; col. 15, line 52 – col. 16,

line 12] written using a server-side API [col. 19, lines 12 – 30] based network

programming model [col. 28, lines 42 – 67];

a business logic layer of the application [business logic; col. 31, lines 5 – 15 and

col. 14, lines 23 – 36] and a data layer of the application [data model; col. 35, line 57 –

col. 36, line 6] both of which are written with the server-side API and running on the

server [a server 104; col. 12, lines 16 – 43; server side business logic, col. 31, lines 5 -

15]; and

the server-side API having a supporting infrastructure that: sends [Object data

may take various forms, such as Extensible Markup Language (XML), String, Hypertext

Markup Language (HTML), key/value, Remote Method Invocation (RMI), J/XFS, RS232;

col. 17, lines 25 – 39]. Bahrs discloses that the ViewControllerImpl that implements the

ViewController and JTC interfaces is usually a Java Component or Container or bean

[col. 19, lines 42 – 56]. Bahrs does not specifically disclose applications that are

developed once and deployed multiple times.

However, Nordby teaches an EJB component can be developed once and then

deployed on multiple platforms without recompilation or source code modification [p. 4,

EJB Technology design goals]. Bahrs teaches that the ViewControllerImpl that

implements the ViewController and JTC interfaces is usually a Java Component or

Container or bean. It would have been obvious to a person of ordinary skill in the art at

the time the invention was made to implement the ViewControllerImpl of Bahrs as a

Java bean and provide applications that can be developed once and deployed multiple

times because this simplifies development of middleware components that are

transactional, scalable, and portable [p. 1, 4th paragraph of Nordby] and provides a

robust, scalable environment that can support mission-critical enterprise information

systems [p. 1, 5th paragraph of Nordby]. Bahrs as modified does not teach different

User Interface (UI) records comprising information associated with the application's user

interface information to a plurality of client devices, each UI record modifying the

application's user interface according to the display capabilities of the respective client

to enable display of a modified version of the application's user interface by the

respective client, wherein the creation of each UI record occurs on the server-side API

without user input on any client device of the plurality of client devices and further

wherein the information in each UI record depends on the type of the respective client,

handles communications problems, renders the application's user interface, dispatches

necessary user input events back to the server for processing.

However, Greenfield teaches different User Interface (UI) records comprising

information [Ispec definition; col. 8, lines 12 – 23] associated with the application's user

interface information [col. 8, lines 46 – 60] to a plurality of client devices [col. 8, line 60 –

col. 9, line 6], each UI record modifying the application's user interface according to the

display capabilities of the respective client to enable display of a modified version of the

application's user interface by the respective client [LINC Ispec interface definitions and

builds JavaBeans components for use in client application programs; col. 10, lines 45 –

63], wherein the creation of each UI record occurs on the server-side API without user input on any client device of the plurality of client devices [col. 3, lines 58 – 67] and further wherein the information in each UI record depends on the type of the respective client [col. 8, lines 12 – 23] handles communications problems [col. 18, lines 11 – 23], renders the application's user interface [col. 19, lines 18 – 33], dispatches necessary user input events back to the server for processing [col. 10, lines 56 – 63].

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to further modify Bahrs and Nordby to incorporate the features of Greenfield. One of ordinary skill in the art would have been motivated to make the combination because this provides a method for adapting a legacy software application developed for an environment comprising a centralized computing resource interconnected to a series of computer terminal devices to a network environment [col. 2, lines 13 – 32 of Greenfield].

9.   As to claim 23, Bahrs as modified teaches an apparatus for distributing an application over a network [col. 14, lines 23 – 36 of Bahrs] to a plurality of client devices having different display capabilities [col. 44, lines 13 – 50 of Bahrs] where the apparatus includes:

a server [a server 104; col. 12, lines 15 – 45 of Bahrs];

a network communication means [network 102; col. 12, lines 16 – 45 of Bahrs];

a storage device for storing, for each client device of the plurality of client devices, a User Interface (UI) record [Ispec definition; col. 8, lines 12 – 23 of Greenfield]

associated with a re-implemented [replacement may be accomplished by creating the

developer's own implementation of ViewControllerBaseImpl that implements the

methods getComponent( ), setEnabled(boolean enable), and setVisible(boolean

visible), col. 20, lines 33 – 52 of Bahrs; overriding methods of the ViewController class,

col. 31, line 53 – col. 32, line 22 of Bahrs; examiner notes that when the methods of the

ViewController class is overridden with the developer own implementation, the View

Controller class is re-implemented] network based API module that is used to

transparently replace the API on which the application was developed [ViewController

interface 3902 extends JTC interface 3904; col. 35, lines 45 – 54 and col. 44, line 13 –

50 of Bahrs] and is customized according to display capabilities of the respective client

device [LINC Ispec interface definitions and builds JavaBeans components for use in

client application programs; col. 10, lines 45 – 63 of Greenfield];

a first means for running an application of the plurality of applications where a

business logic [business logic; col. 31, lines 5 – 15 and col. 14, lines 23 – 36 of Bahrs]

of the application runs on the server [a server 104; col. 12, lines 16 – 43; server side

business logic, col. 31, lines 5 - 15 of Bahrs];

a second means for forwarding a given UI record to a client in response to a

launch of the application by the client to display the application interface on the client

device in accordance with display capabilities of the client device [col. 8, line 60 – col. 9,

line 6 of Greenfield] wherein the creation of each UI record occurs on the server-side

API without user input on any client device of the plurality of client devices [col. 3, lines

58 – 67 of Greenfield] and further wherein the information in each UI record depends on the type of the respective client [col. 8, lines 12 – 23 of Greenfield];

a third means for transferring the user interactions on the client device to the server [col. 18, line 63 – col. 19, line 13 of Bahrs], calculating the appropriate response to the input [deliver the information to the server's service for processing; col. 16, line 56 – col. 17, line 15 of Bahrs], and transmitting the appropriate response to the client machine [response data will be returned to the Transporter 524 in a RequestEvent; col. 16, line 56 – col. 17, line 15 of Bahrs];

a fourth means for updating the display of the application on the client device based on the responses from the server [return data may be sent to ViewController 502 to refresh the view displayed on the screen to the user; col. 16, line 56 – col. 17, line 15 of Bahrs];

wherein use of the re-implemented network aware API enables the application [col. 19, lines 42 – 56 of Bahrs and col. 19, lines 18 – 33 of Greenfield] and application interface to be developed once and deployed multiple times on different client devices having different display capabilities [EJB component can be developed once and then deployed on multiple platforms without recompilation or source code modification; p. 4, EJB Technology design goals of Nordby].

Conclusion

10.   Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37

CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not

mailed until after the end of the THREE-MONTH shortened statutory period, then the

shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later

than SIX MONTHS from the date of this final action.

CONTACT INFORMATION

11.   Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Li B. Zhen whose telephone number is (571) 272-3768.

The examiner can normally be reached on Mon - Fri, 8:30am - 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Meng-Ai An can be reached on (571)272-3756. The fax phone number for

the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a

USPTO Customer Service Representative or access to the automated information

system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Li B. Zhen/   Li B. Zhen
Primary Examiner, Art Unit 2194   Primary Examiner
                                                          Art Unit 2194